Product Datasheet

2-port Full Gigabit Industrial PoE Fiber Switch

(ONV-IPS3021PF-SFP)

OVERVIEW

The ONV-IPS3021PF-SFP is a full gigabit industrial PoE fiber switch independently developed by ONV. It has 1*10/100/1000Base-T RJ45 ports and 1*1000Base-X uplink SFP fiber port. Port 1 can support IEEE 802.3 af/at PoE standard, and single-port PoE power up to 30W. As a PoE power supply device can automatically detect and recognize the power-receiving equipment that meets the standard and supplies power through the network cable. It can supply power to PoE terminal equipment such as wireless AP, IP cameras, VoIP phones, and industrial sensors through network cables, and meet the network environment that needs a high-density PoE power supply. It is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy and green energy, and industrial scenes such as construction to set up a cost-effective and stable communication network. Unmanaged mode, plug and play, no configuration, easy to use.

FEATURE

■ **Gigabit Ethernet access, SFP fiber port uplink**

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

◇ Support Gigabit Ethernet port and Gigabit SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ **Smart PoE power supply**

◇ IEEE 802.3 af/at PoE standard, without damaging non-PoE devices.

◇ 1*10/100/1000Base-T RJ45 ports support PoE power supply to meet the needs of PoE power supply in various scenarios in the industrial field.

◇ Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.

■ **Stable and reliable**

◇ CCC, CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link, PoE.

◇ Low power consumption, no fan, aluminum shell, excellent heat dissipation to ensure the stable operation of the switch.
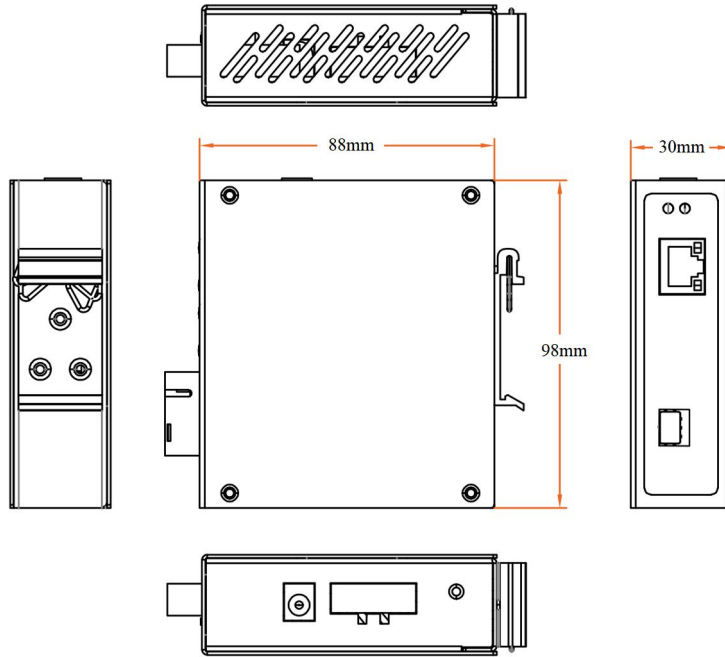
TECHNICAL SPECIFICATION

Model	ONV-IPS3021PF-SFP
Interface Characteristics	
Fixed Port	1*DC5521 power socket 1*1000Base-X uplink SFP fiber port (Data) 1*10/100/1000Base-T PoE ports (Data/Power) 2 set of V+, V- redundant DC power interface (3P Phoenix terminal)

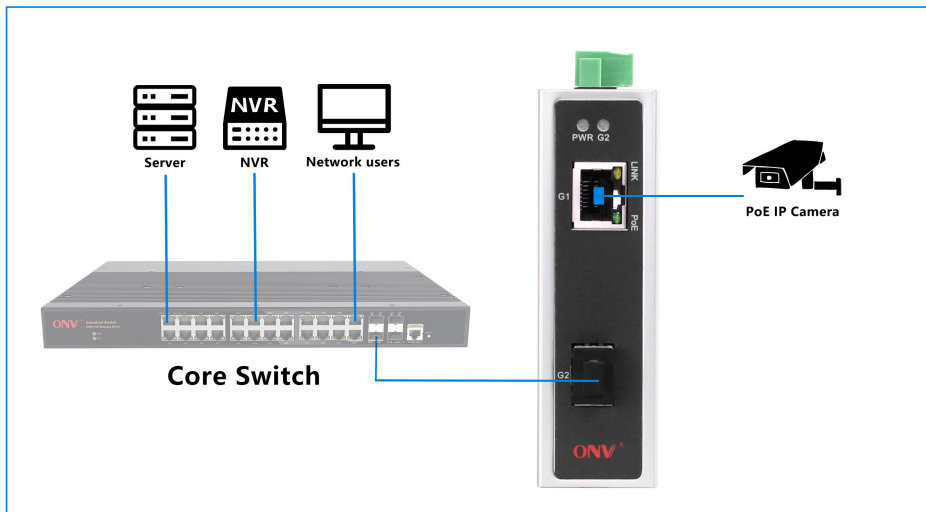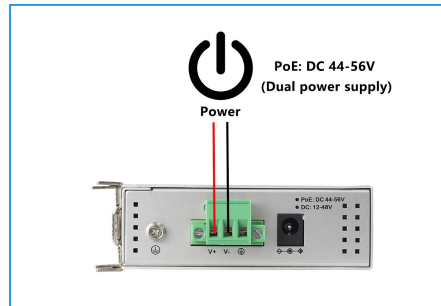| Ethernet Port	Port 1 support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
Fiber Port	Gigabit optical fiber port, default not include optical module (optional single-mode/ multi-mode, single fiber / dual fiber optical module. LC)
Optical Cable/ Distance	Multi-mode: 850nm/ 0-500m Single-mode: 1310nm/0-40km, 1550nm/ 0-120km.
Chip Parameter	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IIEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	12Gbps (no-blocking)
Forwarding Rate@64byte	8.93Mpps
MAC	2K
Buffer Memory	2Mb
Jumbo Frame	9216B
LED Indicator	Power: PWR (Green), PoE: PoE (Green) Network: Link (Yellow), Fiber port: G2 (Green)
PoE & Power Supply	
PoE Port	Port 1
Power Supply Pin	1/2(+) 3/6 (-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<1W, Full load af<15, at<30W
Power Supply	No, optional 36W/48V industrial power supply
Working Voltage	DC44-56V, 3P industrial Phoenix terminal, support anti-reverse protection.
Physical Parameter	

Operation TEMP/ Humidity	-40~+75°C, 5%~90% RH Non condensing
Storage TEMP/ Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension (L*W*H)	98*88*30mm
Net /Gross Weight	<0.25kg / <0.35kg
Installation	Desktop, DIN Rail
Certification & Warranty	
Lightning Protection	Protection level: IP30

Lightning protection: 6KV 8/20us

IEC61000-4-3 (RS):10V/m (80~1000MHz)

FCC Part 15/CISPR22 (EN55022): Class B

IEC61000-6-2 (Common Industrial Standard)

IEC61000-4-9 (Pulsed magnet field): 1000A/m

IEC61000-4-10 (Damped oscillation): 30A/m, 1MHz

IEC61000-4-12/18 (Shockwave): CM 2.5kV, DM 1kV

IEC61000-4-4(EFT): Power cable:±4kV, Data cable: ±2kV

IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s

IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge

IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz)

IEC61000-4-8 (Power frequency magnetic field):100A/m, 1000A/m, 1s-3s

IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, Data cable: ±4kV |
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

88mm

30mm

98mm

APPLICATION

Plug and play

Wide temperature range

DIN Rail installation

Power

PoE: DC 44-56V
(Dual power supply)

● PoE: DC 44-56V
● DC: 12-48V

V+ V-

Server

NVR

Network users

PWR G2

G1

LINK

PoE

G2

PoE IP Camera

Core Switch

ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS3021PF-SFP	Unmanaged industrial PoE fiber switch with 1*10/100/1000M RJ45 ports and 1*1000M uplink SFP port. Port 1 can support IEEE 802.3 af/at PoE standard. It can support dual DC redundant power input and DIN rail mounting.	48V/36W

Note: The optical module and power supply are not included, and need to be purchased separately.

PACKING LIST

	Content	Qty	Unit
Packing List	2-port full gigabit industrial PoE fiber switch	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

OPTICAL MODULE

Product	Model	Description	Unit
1.25G Optical Module	2630-G	Industrial optical module, 1.25G multi-mode dual fiber 850nm, transmission distance: 550m, LC interface, support DDM function, hot plug and pull.	PC
	2632-G	Industrial optical module, 1.25G single-mode dual fiber 1310nm, transmission distance: 20km, LC interface, support DDM function, hot plug and pull.	PC
	2612-T-G	Industrial optical module, 1.25G single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, LC interface, support DDM function, hot plug and pull.	PC

	2613-R-G	Industrial optical module, 1.25G single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, LC interface, support DDM function, hot plug and pull.	PC
	2612-T-G-SC	Industrial optical module, 1.25G single-mode single fiber TX1310nm/ RX1550nm, transmission distance: 20km, SC interface, support DDM function, hot plug and pull.	PC
	2613-R-G-SC	Industrial optical module, 1.25G single-mode single fiber TX1550nm/ RX1310nm, transmission distance: 20km, SC interface, support DDM function, hot plug and pull.	PC

POWER SUPPLY

Product	Model	Description	Unit
36W Desktop Power Adapter	GWS-AP36-52	Desktop 36W single set of output power adapter Input Voltage: AC100V~240V 50-60Hz, 0.56A Output Voltage: DC52V, 0.7A Operation Temperature: -20℃ to +65℃	PC
36W DIN Rail Industrial Power Supply	GWS-DP36-48	DIN Rail 36W single set of output power supply Input Voltage: AC100V~240V 50-60Hz, 0.56A Output Voltage: DC48V, 0.75A Operation Temperature: -40℃ to +70℃	PC

CONTACT US

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